SWDR SUMMARY SPREADSHEETS USER GUIDE

August 2017

California Department of Transportation
Division of Design
Office of Storm Water Management
1120 N Street
Sacramento, California

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LIST OF ACRONYMS

ac	Acres
ATA	Additional Treated Area
BMP	Best Management Practice
CDA	Contributing Drainage Area
Comp	Completed
Const	Construction
CT	Caltrans
CU	Compliance Unit
DEA	Division of Environmental Analysis
DPPIA	Design Pollution Prevention Infiltration Area
DSA	Disturbed Soil Area
EA	Expenditure Authorization
EFIS	Enterprise Resource Planning Financial Infra-Structure
EPA	Environmental Protection Agency
Est	Estimated
EW	Erosivity Waiver
FAC	Maintenance Facility
GSRD	Gross Solid Removal Device
HSA	hydrologic sub area
IMMS	Integrated Maintenance Management System
LA	Landscape Architect

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MCTT	Multi-Chamber Treatment Train
MedFilter	Media Filter
MWELO	Model Water Efficient Landscape Ordinance
NNI	Net New Impervious
NPDES	National Pollutant Discharge Elimination System
OHSD	Office of Hydraulics and Stormwater Design
PA/ED	Project Approval/Environmental Document
PCTA	Post Construction Treatment Area
PE	Project Engineer
PID	Project Information Document
PM	Post Mile
PPDG	Project Planning and Design Guide
PS&E	Plans, Specifications & Estimate
RWB	Regional Water Board
RSA	Rapid Stream Assessment
RIS	Replaced Impervious Surface
RL	Risk Level
R/W	Right of Way
SA	Stabilized Area
SW	Stormwater
SWDR	Storm Water Data Report
SWMP	Storm Water Management Plan
TMDL	Total Maximum Daily Load
TMT	Tracking Maintenance Treatment
TST	Traction Sand Traps
Var	Various
WPCP	Water Pollution Control Plan
WQAR	Water Quality Assessment Report
WQF	Water Quality Flow
WQPT	Water Quality Planning Tool
WQV	Water Quality Volume

1. INTRODUCTION

1.1. *OVERVIEW*

This document contains additional guidance on the SWDR Summary Spreadsheets process to enhance Section 6.6 of the latest PPDG. Use this Guide for projects with a Project Initiation Document (PID) signed on or after July 1, 2013. This guide is structured to assist new and experienced data input people.

This guide is intended to assist the PE in understanding why the spreadsheets are necessary, what, when, where, who and why data is stored in the spreadsheets, where to obtain the data in the SWDR, and how to properly place the data in the spreadsheets.

1.2. *AUDIENCE*

The intended audience of this Guide is Caltrans District Stormwater Coordinators, Project Engineers (PE), Landscape Architects (LA), and Maintenance Representatives that sign the cover sheet of the Stormwater Data Report (SWDR).

It is the responsibility of the Maintenance Representative to ultimately determine the final description that meets their needs and determine names for Maintenance Facilities. Refer to the Column labeled *BMP Specific Comments* on the TMT Spreadsheet in Table 4-4 for more information.

1.3. *DEVELOPMENT*

The SWDR Summary Spreadsheets were developed for several reasons:

1. Caltrans management has tasked the Office of Hydraulics and Stormwater Design (OHSD) to track the SWDR information and the number of treatment BMPs as part of design compliance monitoring in accordance with the Departments NPDES/SWMP requirements.
2. Division of Maintenance must track specific treatment BMP information in accordance with the NPDES/SWMP requirements and to meet future operation and maintenance needs. OHSD agreed to track this information for Maintenance through the planning and design phases of a project. The specific information tracked:
    a. Name and location of BMP (including latitude, longitude, county, route and post mile);
    b. Watershed, Regional Water Board, and Caltrans District where located;
    c. Size and capacity; and
    d. Treatment BMP type
3. Some of the fields tracked in these spreadsheets may be used for Program Evaluation (PPDG Section 2.2).

4. Some of the fields tracked are agreements between OHSD and DEA (i.e., Basis of BMP Requirement (non 402), additional Maintenance needs, and BMP Capital Cost).

This information was previously tracked through the SWDR Summary Spreadsheets data uploaded to OHSDs database tracking tool. DEA has agreed to track this information using the Stormwater Portal based on the Departments 2012 NPDES Permit. OHSDs tracking tool will no longer be supported.

OHSD collaborated with DEA and the Division of Maintenance on the data, format, and process to upload the SWDR Summary Spreadsheets (based on Caltrans 2012 NPDES Permit) into the Stormwater Portal. The Stormwater Portal has several automated features to enhance entering data that the SWDR Summary Spreadsheets don't.

The SWDR Summary Spreadsheets no longer support some of the old tracking fields and are reconfigured to support Caltrans latest NPDES Permit.

The SWDR Summary Spreadsheets can be downloaded from OSHDs website (http://www.dot.ca.gov/design/hsd/swdr/index.html).

The spreadsheets have hidden columns. Do not delete. Users must be careful when deleting rows from the TMT Spreadsheet that rows important to background calculations are not inadvertently deleted. Row 301 sums specific columns and transfers the data to the SWDR Spreadsheet. Lastly, do not delete any of the pre-made tabs.

1.4. *DATA ENTRY*

Microsoft Excel software was used to develop the SWDR Summary Spreadsheets file. The file consists of two spreadsheets; the SWDR Spreadsheet (SWDR Rpt tab) tracks information related to the overall project and the Tracking Maintenance Treatment (TMT) Spreadsheet (TMT tab) tracks the individual treatment BMPs.

The Stormwater Portal tracks additional information that the SWDR Summary Spreadsheets do not. Any additional information needed to fill out the Stormwater Portal can be found in the SWDR.

The District NPDES Coordinator may enter the projects and BMPs into the Stormwater Portal or designate a staff member to enter them. See Section 5.4 of District NPDES Coordinator Handbook.

The District NPDES Coordinator is responsible for QA/QC and verifying that all the data entered for their District is accurate. See 5.5 of District NPDES Coordinator Handbook.

2. RESPONSIBILITIES

2.1. *PROJECT ENGINEER & LANDSCAPE ARCHITECT*

The SWDR Spreadsheet is required to be filled out for every project phase.

The TMT Spreadsheet is only required to be filled out if there are treatment BMPs within the project with sufficient detailed design information available. If the project is in a TMDL waterbody (based on Attachment IV of Caltrans 2012 NPDES Permit), compliance units (CUs) may be claimed as early as the PID phase. A PE should consider designing treatment BMPs in the planning phases of a project only when sufficient detailed design information and supporting funds are available.

The PE or LA that signs the cover sheet of the SWDR ensures the SWDR Summary Spreadsheets data is available in the SWDR.

3. SWDR Spreadsheet

This spreadsheet consists of 32 columns (Figure 3-1). Each column header is identified with a number (top row), which can be cross referenced to where most of the information can be obtained in the SWDR (Figure 3-2 and 3-3). The numerical column headers have also been added to the Excel SWDR Spreadsheet tab.

1	2	3	4	5	6	7	8	9	10	11	12	13
SWDR Signed Date	District	EA/Project ID	County	Route	Beg_PM	End_PM	Project Description	Project Phase	Long SWDR	Risk Level	DSA (ac)	TMDL Waterbody

14	15	16	17	18	19	20	21	22	23	24
Biofiltration Strips and Swales	Detention	Infiltration Devices	GSRD	TST	MedFilter	DPPIA	SA	Other BMP	Est. Const_Start	Est. Const _Comp

25	26	27	28	29	30	31	32
Net New Impervious area (NNI)	Replaced Impervious Surface (RIS)	Additional Treatment Area (ATA)	Post Const Treatment Area (ac)	Treated Impervious Area (ac)	Treated Impervious Area Balance (ac)	Treated Pervious Area (ac)	Stabilized Area (ac)

33	34	35
MWELO	RSA	SW Comment

Figure 3-1 SWDR Spreadsheet

3.1. *WHERE TO FIND THE DATA IN THE SWDR*

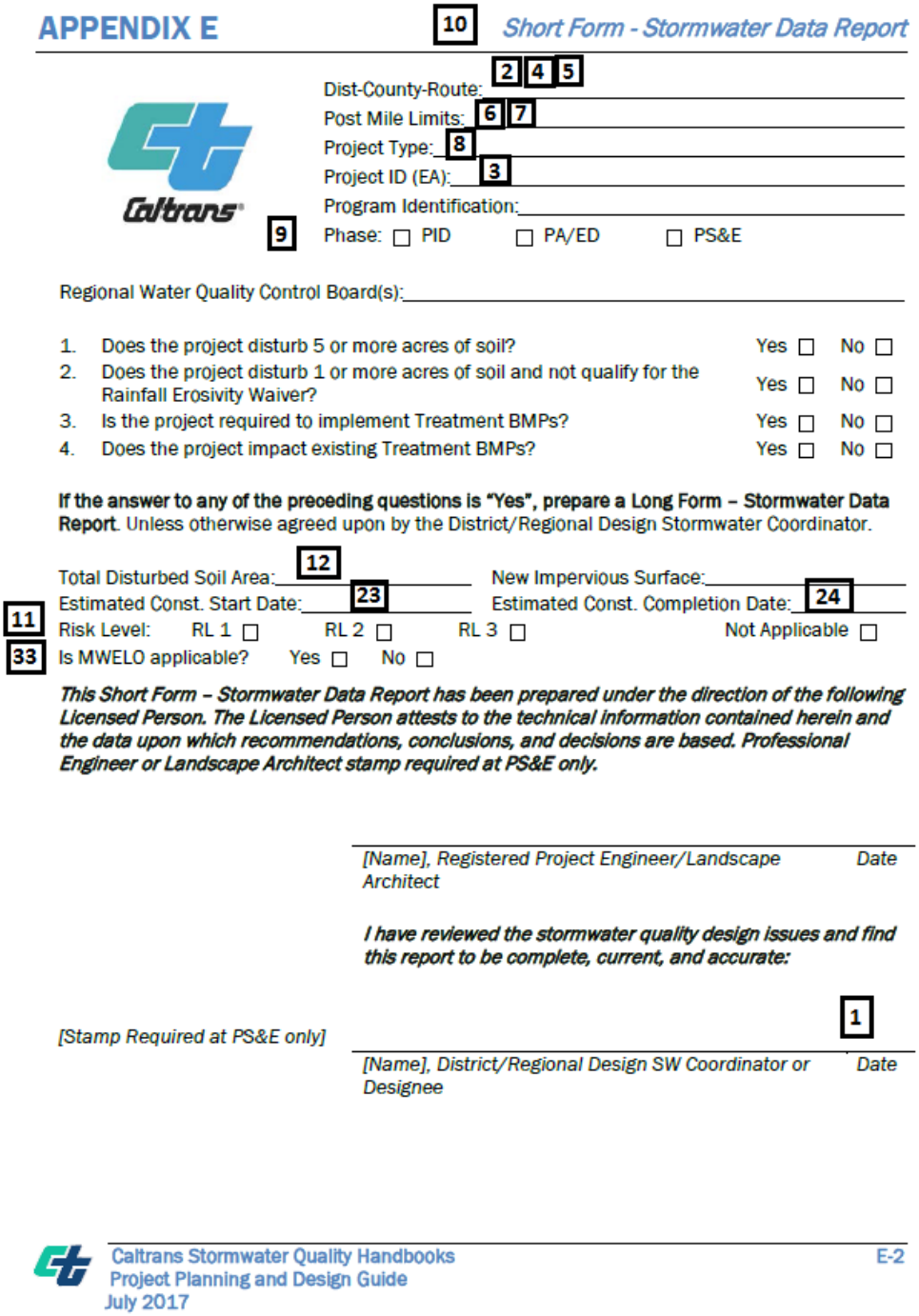
Use either the Short or Long Form Cover Sheet (Figure 3-2 & 3-3) to fill out Columns 1-12, 23-24, and 33 in the SWDR Spreadsheet (Figure 3-1). Depending on the project's potential to create stormwater impacts either a Short or Long Form SWDR is required.

See Section 2 of the SWDR to fill out Columns 13 and 34. Refer to Section 6 of the SWDR if an RSA is required.

Columns 14-22, and 28-32 are automatically filled out from the TMT Spreadsheet (Figure 4-1).

See Section 1 of the SWDR to fill out Columns 25-27.

Column 35 is used for additional comments.



APPENDIX E 10 *Short Form - Stormwater Data Report*

Caltrans

Dist-County-Route: 2 4 5

Post Mile Limits: 6 7

Project Type: 8

Project ID (EA): 3

Program Identification:

9 Phase: ☐ PID ☐ PA/ED ☐ PS&E

Regional Water Quality Control Board(s):

1.	Does the project disturb 5 or more acres of soil?	Yes ☐	No ☐
2.	Does the project disturb 1 or more acres of soil and not qualify for the Rainfall Erosivity Waiver?	Yes ☐	No ☐
3.	Is the project required to implement Treatment BMPs?	Yes ☐	No ☐
4.	Does the project impact existing Treatment BMPs?	Yes ☐	No ☐

If the answer to any of the preceding questions is "Yes", prepare a Long Form – Stormwater Data Report. Unless otherwise agreed upon by the District/Regional Design Stormwater Coordinator.

Total Disturbed Soil Area: 12 New Impervious Surface:

Estimated Const. Start Date: 23 Estimated Const. Completion Date: 24

11 Risk Level: RL 1 ☐ RL 2 ☐ RL 3 ☐ Not Applicable ☐

33 Is MWELO applicable? Yes ☐ No ☐

This Short Form – Stormwater Data Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E only.

[Name], Registered Project Engineer/Landscape Architect *Date*

I have reviewed the stormwater quality design issues and find this report to be complete, current, and accurate:

[Stamp Required at PS&E only]

1

[Name], District/Regional Design SW Coordinator or Designee *Date*

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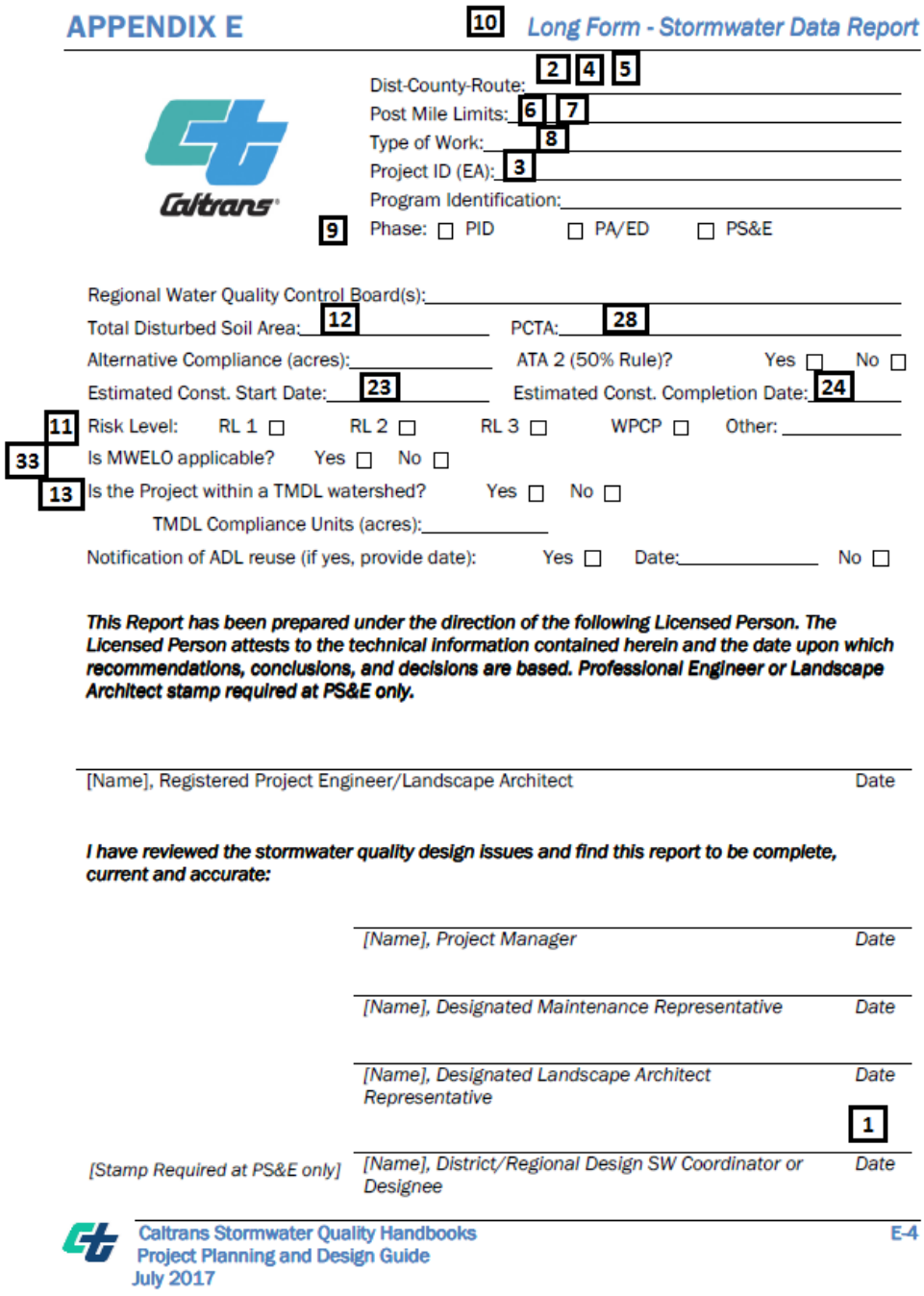
Figure 3-2 Short Form Cover Sheet



APPENDIX E 10 *Long Form - Stormwater Data Report*

Caltrans

Dist-County-Route: 2 4 5
Post Mile Limits: 6 7
Type of Work: 8
Project ID (EA): 3
Program Identification:
9 Phase: ☐ PID ☐ PA/ED ☐ PS&E

Regional Water Quality Control Board(s):
Total Disturbed Soil Area: 12 PCTA: 28
Alternative Compliance (acres): ATA 2 (50% Rule)? Yes ☐ No ☐
Estimated Const. Start Date: 23 Estimated Const. Completion Date: 24
11 Risk Level: RL 1 ☐ RL 2 ☐ RL 3 ☐ WPCP ☐ Other:
33 Is MWELO applicable? Yes ☐ No ☐
13 Is the Project within a TMDL watershed? Yes ☐ No ☐
TMDL Compliance Units (acres):
Notification of ADL reuse (if yes, provide date): Yes ☐ Date: No ☐

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E only.

[Name], Registered Project Engineer/Landscape Architect Date

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

[Name], Project Manager *Date*

[Name], Designated Maintenance Representative *Date*

[Name], Designated Landscape Architect Representative *Date*

1

[Stamp Required at PS&E only] *[Name], District/Regional Design SW Coordinator or Designee* *Date*

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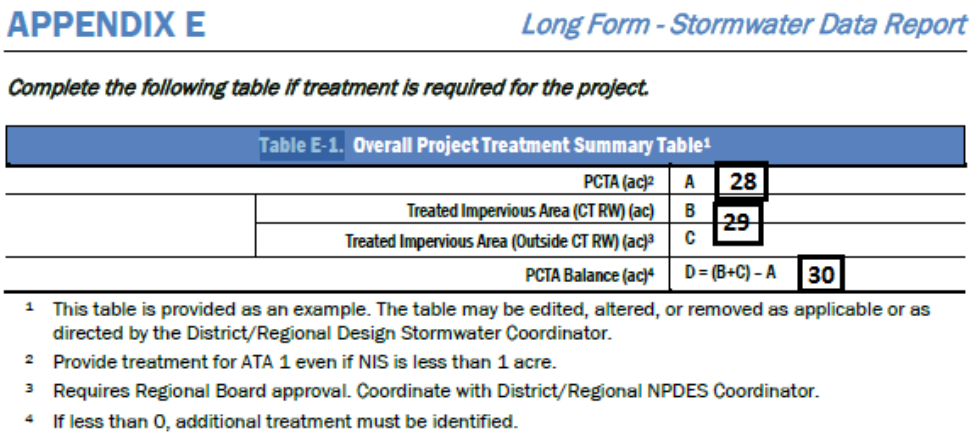
Figure 3-3 Long Form Cover Sheet



APPENDIX E *Long Form - Stormwater Data Report*

Complete the following table if treatment is required for the project.

Table E-1. Overall Project Treatment Summary Table[1]

PCTA (ac)[2]	A	28	
Treated Impervious Area (CT RW) (ac)	B	29	
Treated Impervious Area (Outside CT RW) (ac)[3]	C		
PCTA Balance (ac)[4]	D = (B+C) – A		30

1 This table is provided as an example. The table may be edited, altered, or removed as applicable or as directed by the District/Regional Design Stormwater Coordinator.

2 Provide treatment for ATA 1 even if NIS is less than 1 acre.

3 Requires Regional Board approval. Coordinate with District/Regional NPDES Coordinator.

4 If less than 0, additional treatment must be identified.

Figure 3-4 Overall Project Treatment Summary Table

Columns 28-30 in the SWDR Spreadsheet are automatically filled out. In Section 6 of the SWDR compare the Overall Project Treatment Summary Table (Figure 3-4) and make sure the data matches Columns 28-30 data. Verify Column 28 matches the Long Form (Figure 3-3) and the Overall Project Treatment Summary Table E-1 (Figure 3-4).

3.2. *COLUMN FIELD TYPES*

There are four field types that data can be entered. They are date, pull down menu, number, and no restriction. There is one additional field type that data is automatically entered. The tables below include an explanation of each field. The first column is the identifier used in Figures 3-1.

If additional clarification is required while filling out fields, use the SW Comment field.

3.2.1. Automatically Filled in

These fields require no data to be entered. Data is automatically filled in.

Table 3-1 Automatically Filled in Fields

14	*Biofiltration Strips and Swales*	Biofiltration Strips and Swales
15	*Detention*	Detention Basins
16	*Infiltration Devices*	Infiltration Basins and Infiltration Trenches
17	*GSRD*	Gross Solids Removal Devices
18	*TST*	Traction Sand Traps
19	*MedFilter*	Media Filters

20 21 22	*DPPIA* *SA* *Other BMP*	Design Pollution Prevention Infiltration Areas Stabilized Areas Other BMPs Do not fill this field out. These fields are automatically calculated using the TMT spreadsheet to determine the number of each BMP used. Use Other BMP pull down menu for: o pilot and nonstandard treatment BMPs, and o Caltrans approved treatment BMPs that are rarely used: Dry Weather Flow Diversion, Multi-Chamber Treatment Train (MCTT), and Wet Basin If Other BMP pull down menu is used, insert BMP type(s) into the SW Comment field.
28	*Post Const Treatment Area (ac)*	Do not fill this field out. It is automatically calculated by adding Column 25 thru 27. If PCTA is < 1 acre (5,000 sf for non-highway projects), PCTA is automatically calculated as 0 based on Permit requirements (see PPDG 4.3, Figure 4-1). If project is a non-highway project the PE must select the non-highway Route pull down menu in order for the 5,000 sf criteria to apply, otherwise the 1 acre criteria will apply. This field is the Post Construction Treatment Area. See Section 4.4 of the PPDG.
29	*Treated Impervious Area (ac)*	Do not fill this field out. This field is automatically calculated using the TMT spreadsheet. The Treated Impervious Area (ac CT R/W) column is used to sum all the TBMPs with these areas.
30	*Treated Impervious Area Balance (ac)*	Do not fill this field out. It is automatically calculated by subtracting Column 27 from 26. If the project PID is signed before July 1, 2013, the following applies: • PCTA = NNI + ATA 1, and • It is not mandatory to treat PCTA because there are no Alternative Compliance requirements.
31	*Treated Pervious Area (ac)*	Do not fill this field out. This field is automatically calculated using the TMT spreadsheet. The Treated Pervious Area (ac CT R/W) column is used to sum all the TBMPs with these areas.

32	*Stabilized Area (ac)*	Do not fill this field out. This field is automatically calculated using the TMT spreadsheet. The Stabilized Area (ac) column is used to sum all the TBMPs with these areas.

3.2.2. Date

These fields require a valid date. If you try to enter anything else, you will get an error message.

Table 3-2 Date Fields

1	*SWDR Signed Date*	This is the date when the District/Regional Design Stormwater Coordinator signs the Cover Sheet of the SWDR. The District/Regional Design Stormwater Coordinator is always the last to sign.
23	*Est. Const_Start*	The estimated construction start date of the project.
24	*Est. Const_Comp*	The estimated construction completion date of the project.

3.2.3. Pull Down Menu

These fields have a built in pull down menu. Only valid data is entered. These pull downs are intended to help districts and project engineers enter the data correctly in a consistent format for future reference and compliance.

Table 3-3 Pull Down Menu Fields

2	*District*	2-Digit
4	*County*	Caltrans County abbreviation If the project is in multiple counties, select Var (various) from the pull down menu.
5	*Route*	If the project is in multiple routes, select Var (various) from the pull down menu. If project is a non-highway project, use the non-highway pull down menu.
9	*Project Phase*	Use PID, PA/ED or PS&E.
10	*LongSWDR*	This is to see if the long or the short SWDR form was used; Yes (for long) or No (for short).
11	*Risk Level*	See Section 6.4.4.2 of the PPDG. Choose EW, WPCP, RL 1, RL 2, RL 3, or Special. Use EW for projects that are subject to the CGP and qualify for a Rainfall Erosivity Waiver. Use WPCP for projects that are exempt from the CGP and using a

		WPCP. Use Special for Tahoe Basin and tribal land. Use the "SW Comment" field when using the Special pull down (e.g., Using EPA Permit because project is on tribal lands).
13	*TMDL Waterbody*	This field identifies if the project (or portion) is within a Total Maximum Daily Load (TMDL) waterbody based on Appendix D of the June 2016 SWMP. Use the SW Portal to identify if the project is located within a TMDL watershed based on Attachment IV of Caltrans 2012 NPDES Permit. Answer "Yes" or "No". See Section 2 of the SWDR. Refer to Section 6.4.3 of the PPDG.
33	*MWELO*	This field identifies whether the Model Water Efficient Landscape Ordinance (MWELO) applies. Select "Yes" or "No". The District Landscape Architect is responsible to ensure the project is compliant with the Model Water Efficient Landscape Ordinance (MWELO) requirements included by California Department of Water Resources or local ordinance. Refer to Section 6.4.7.5 of the PPDG.
34	*RSA*	Does the project require a Rapid Stability Assessment (RSA) per Caltrans Hydromodification Requirements Guidance? Answer "Yes" or "No". See Section 2 of the SWDR. Refer to Section 6.4.3 of the PPDG.

3.2.4. Number

These fields are required to be in a numeric format. Some can be decimal but some have to be whole numbers. Using less than or greater than signs or other text character will result in an error message.

Table 3-4 Number Fields

12	DSA (ac)	This field can be a decimal number. If no DSA, enter 0. One decimal place to the right is available. It is recommended to use 1 at design and either 0 or 1 during planning. Use engineering judgment on significant figures to use. If using Common Plan of Development criteria and multiple construction locations, see your District/Regional Stormwater Coordinator how to document.
25	Net New Impervious area (NNI)	This field is the NNI. See Section 4.3 Step 7 of the PPDG. If no treatment required, enter 0 or leave blank. Two decimal places to the right are available. It is recommended to use 2 at design and 1 during planning.

26	Replaced Impervious Surface (RIS)	This field is the RIS. See Section 4.3 Step 7 of the PPDG. If no treatment required, enter 0 or leave blank. Two decimal places to the right are available. It is recommended to use 2 at design and 1 during planning.
27	Additional Treatment Area (ATA)	This field is the ATA (Condition 1 Impervious and Condition 2). See Section 4.3 Step 7 of the PPDG. If no treatment required, enter 0 or leave blank. Two decimal places to the right are available. It is recommended to use 2 at design and 1 during planning. Do not include Condition 1 Pervious.

3.2.5. No Restriction

Table 3-5 No Restriction Fields

3	*EA / Project ID*	Add the 5 digit EA designation. If EAs are no longer accepted, use the 10 digit EFIS Project ID. This field allows numeric and alpha characters and must be filled out correctly. Caltrans is transitioning from EAs to Project IDs and this will satisfy the new requirement.
6	*Beg_PM*	If the project has only one continuous construction area (0.2 miles or greater in length), type in the Begin post mile to match the Title Sheet of the plans. If the project has multiple construction areas, type in "Various". If the project has only one project location (less than 0.2 miles in length), use this field to report the post mile center location.
7	*End_PM*	If the project has only one continuous construction area, type in the End Post Mile to match the Title Sheet of the plans. If the project has multiple locations, type in "Various".
8	*Project Description*	Brief description of the project.
35	*SW Comment*	Applicable comments. Use the following text for projects that completed the PID phase prior to July 1, 2013: The PID for this project was signed on MM/DD/YYYY, and therefore the project is grandfathered under the Caltrans Permit (Section E.2.d). This project is subject to the requirements contained within the 1999 Caltrans Permit. If the PID is signed on or after July 1, 2013 the project must comply with the Project Planning and Design section requirements of Caltrans 2012 MS4 Permit. This means following PCTA requirements per Section 4.4 of the PPDG. If

		the project PID is signed before July 1, 2013 the following applies: • PCTA = NNI + ATA 1, • It is not mandatory to treat PCTA because there are no Alternative Compliance requirements. Add text for Dry Weather Flow

4. TMT SPREADSHEET

This spreadsheet consists of 25 columns (Figure 4-1). Each column is identified with a number (top row), which can be cross referenced to the Column Field Types tables below. The numerical column headers have also been added to the Excel TMT tab of the spreadsheet.

1	2	3	4	5	6	7	8	9	10	11	12	13
IDNO	EA / Project ID	BMP Type	District	County	Route	LocBPM	Begin Latitude (d.d)	Begin Longitude (d.d)	LocEPM	End Latitude (d.d)	End Longitude (d.d)	Direction

14	15	16	17	18	19	20	21	22	23	24	25
Trash/Sand Capacity (cyd)	BMP Specific Comments	Treated Impervious Area (ac CT R/W)	Treated Pervious Area (ac CT R/W)	WQV Capacity (cf)	WQF Capacity (cfs)	Basis of BMP Requirement (non 402)	Stabilized Area (ac)	TMDL Waterbody	BMP Capital Cost	Water shed	RWB

Figure 4-1 TMT Spreadsheet

4.1. *COLUMN FIELD TYPES*

There are four field types that data can be entered and explained below. They are pull down menu, number, no restriction, and currency. There is one additional field type that data is automatically entered. The tables below have three columns: column identifier, column name, and a description. The column identifier and name can be cross referenced to Figure 4-1.

Do not fill this spreadsheet out if no treatment BMPs are proposed in the project. Fill out the TMT Spreadsheet only if treatment BMP(s) are deployed.

If additional clarification is required while filling out fields, use the *BMP Specific Comments* field.

4.1.1. Automatically Filled in

Table 4-1 Automatically Filled in Fields

1	*IDNO*	This is the unique BMPs identifier specific to the TMT Spreadsheet. Do not fill this field out. It is automatically filled in once the "EA / Project ID" cell is filled in on the SWDR Spreadsheet. See Table E-2 in PPDG. This is not the same IDNO that Division of Maintenance uses in IMMS. The SW Portal uses the IMMS naming convention.

		When existing TBMPs are to be removed or modified: • In Section 6 of SWDR within the Treatment BMP Strategy section (see PPDG 6.4.7.3) District should provide the following tables: • Existing TBMP Removed • Existing BMP Modified (CDA added) • Existing BMP Modified (CDA subtracted) and document which Caltrans NPDES Permit design requirements were used to design the BMP. • Section 1 of the SWDR should reference these tables and add/subtract the areas to properly calculate PCTA. Coordinate with the District/Regional NPDES Coordinator how to document these changes in the SWDR and SW Portal.
2	*EA / Project ID*	This field is copied from the SWDR spreadsheet.

4.1.2. Pull Down Menu

Table 4-2 Pull Down Menu Fields

3	*BMP Type*	See Table 4-6 for types and brief description of each. When multiple treatment BMPs are used in a treatment train the upstream treatment BMP should be reported first followed by the next downstream treatment BMP, etc.… Another possible method would be to put the primary first then next, etc… It is up to the district in methodology to use but should be consistent in reporting.
4	*District*	2-Digit
5	*County*	Caltrans County abbreviation (i.e., the counties in the pull down menu will be based on the District chosen)
6	*Route*	Use pull down menu and choose route for highway projects. If non-highway project such as a Maintenance Facility, use FAC. Leave blank for any other type. For any non-highway project use the *BMP Specific Comments* field for naming convention of non-highway facility. The PE must coordinate with the designated Maintenance Representative signing the SWDR for non-highway facility name.
13	*Direction*	Use the side of the roadway the BMP is located and direction traffic is headed on that side of the roadway. N, S, E, W. Use the official direction of the highway. For BMPs located on a

		connector, interchange, median, ramps or corner use the *BMP Specific Comments* field for clarification.
22	*TMDL Waterbody*	This field identifies if the treatment BMP is within a Total Maximum Daily Load (TMDL) waterbody. If the TBMP is not within a TMDL area, then "Non-TMDL" is selected. The pull down menu identifies the TMDL Waterbody (impaired waterbody) including the associated TMDLs (pollutants). Refer to Appendix D of the June 2016 SWMP. The SW Portal automatically identifies this information when the user enters a proposed BMP into the SW Portal. Use the SW Portal to identify the appropriate TMDL Waterbody pull down information.
25	*RWB*	Determine the Regional Water Board that the treatment BMP is within. It is recommended to use the SW Portal. This information can also be found using the WQPT (http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx) or (http://www.owp.csus.edu/WQPT/wqpt.aspx). Division of Maintenance is required to track this field based on Caltrans NPDES Permit.

4.1.3. Number

Table 4-3 Number Fields

8	*Begin Latitude (d.d)*	This field is in decimal degrees. Use a minimum of 5 decimal places to the right. Every treatment BMP must have at least one lat. and long. BMPs easily identified in the field (e.g., basins and concrete vault structures), should have one entry at the center of the BMP. Longer BMPs or BMPs that may be difficult to locate in the future (e.g., Biofiltration Strips and Swales, DPPIA, Infiltration Trench) should identify the beginning and end. Use the *BMP Specific Comment* field if additional explanation is necessary. The PE and Maintenance representative should collaborate to determine best methodology to locate BMPs in the field.
9	*Begin Longitude (d.d)*	This field is in decimal degrees and beginning of the BMP. Use a minimum of 5 decimal places to the right. Make sure to include the negative sign.

11	*End Latitude (d.d)*	This field is in decimal degrees. Use a minimum of 5 decimal places to the right. Use the "BMP Specific Comment" field if additional explanation is necessary. The PE and Maintenance representative should collaborate to determine best methodology to locate BMPs in the field.
12	*End Longitude (d.d)*	This field is in decimal degrees and end of the BMP. Use a minimum of 5 decimal places to the right. Make sure to include the negative sign.
14	*Trash/Sand Capacity (cyd)*	Division of Maintenance is required to track capacity of a treatment BMP that collects trash or traction sand. The intent of this field is to capture the capacity of a GSRD or a TST. Use the *BMP Specific Comments* field to include specific type of GSRD or TST (e.g., Inclined Screen, Sand Vault, Loading Dock, Double Barrel, etc.). One decimal place to the right is available and recommended at all project phases. Leave field blank if treatment BMP is not a GSRD or TST.
16	Treated Impervious Area (ac CT R/W)	Use this field when designing treatment BMPs designed using WQV or WQF. Use for treated impervious area inside Caltrans right of way only. See Table E-2 in PPDG. It is recommended to use 2 digits to the right of the decimal point at design and 1 or 2 during planning. Leave this field blank if treatment BMP is not designed using WQV or WQF.
17	*Treated Pervious Area (ac CT R/W)*	It is recommended to use 2 digits to the right of the decimal point at design and 1 or 2 during planning. Leave this field blank if treatment BMP is not designed using WQV or WQF.
18	*WQV Capacity (cf)*	Use this field for treatment BMPs designed using WQV. This is the design WQV treated. Input as whole number.
19	*WQF Capacity (cfs)*	Use this field for treatment BMPs designed using WQF. This is the design WQF treated. Use 2 decimal places to the right.
21	*Stabilized Area (ac)*	Two decimal places to the right are available. It is recommended to use 2 at design and 1 or 2 during planning. WQV/WQF field is not required to be filled out for this BMP unless calculated amount is available.

4.1.4. No Restriction

Table 4-4 No Restriction Fields

7	*LocBPM*	Beginning post mile for the specific BMP. Use 3 decimal places to the right. Can be used for documenting a treatment BMPs location for Annual Report or can be used for paddle marker location. For areas with several treatment BMPs clumped together the PE and Maintenance representative may decide to fill out the LocBPM for the first BMP and the LocEPM of the last BMP. Any BMPs in between would not be filled out.
10	*LocEPM*	Ending post mile for the specific BMP. Use 3 decimal places to the right. Can be used for paddle marker location. For areas with several treatment BMPs clumped together the PE and Maintenance representative may decide to fill out the LocBPM for the first BMP and the LocEPM of the last BMP. Any BMPs in between would not be filled out.
15	*BMP Specific Comments*	Any applicable comments. Maintenance must have a good description of the size and location of the treatment BMP. Refer to Table 4-7 for example text. It is the responsibility of the PE to provide this description to the Maintenance Representative signing the SWDR. It is the responsibility of the Maintenance Representative to ultimately determine the final description that meets their needs and determine names for Maintenance Facilities.
20	*Basis of BMP Requirement (non 402)*	This field was created to track treatment BMPs required outside of the statewide NPDES Permit (e.g., 401 Certification). Use the *BMP Specific Comments* field for a brief explanation why it was required.
24	*Watershed*	This field is used to track the California watershed the treatment BMP is within. Division of Maintenance is required to track this information based on Caltrans NPDES Permit. If the WQPT (http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx) or (http://www.owp.csus.edu/WQPT/wqpt.aspx) is used to determine the watershed, either the Calwater Watersheds layer or the Watershed Boundary Dataset layer can be used.

		Use the hydrologic sub area (HSA) name and #. (e.g. Angels Camp 534.22) If name is undefined then use undefined for name (e.g. undefined 535.80). Consult with the District/Regional NPDES Coordinator, if more guidance is needed. The Water Quality Assessment Report (WQAR) prepared at PA/ED, if prepared, will have this information also.

4.1.5. Currency

Table 4-5 Currency Field

23	*BMP Capital Cost*	This field should be input as a whole number and the estimated cost should be rounded to Caltrans standards. This field is only required at the PS&E Phase. Refer to Caltrans treatment BMP design guidance for estimating costs captured for each treatment BMP. http://www.dot.ca.gov/hq/oppd/storm1/caltrans_20090729.html

4.2. *BMP TYPE PULL DOWN MENU*

The *BMP Type* column in the TMT Spreadsheet has the following Treatment BMPs to choose from the pull down menu. Refer to Table 4-2 in Section 4.1.2 for more information.

Table 4-6 *BMP Type* Pull Down Menu

BMP Type	Description
BioStrip	Biofiltration Strip
BioSwale	Biofiltration Swale
Detention	Detention Basin
Infiltration	Infiltration Basin
InfilTrench	Infiltration Trench
GSRD	Gross Solids Removal Device (GSRD) Use the *BMP Specific Comments* field to capture the type (e.g., Inclined Screen or Linear Radial).
TST	Traction Sand Trap

MedFilter	Media Filter include Austin Sand Filter (earthen or vault), and Delaware Sand Filter. At this time any other media filter types should use "Other BMP". If a specific media filter type is required to remove a specific pollutant of concern, use the *BMP Specific Comments* field to include an explanation. Use the *BMP Specific Comments* field to capture the type (e.g., Austin Sand Filter (earthen or vault), or Delaware.
DPPIA	Design Pollution Prevention Infiltration Area
SA	Stabilized Area
Other BMP	Use for pilot and nonstandard treatment BMPs. Insert BMP type into *BMP Specific Comments* field. Also use "Other BMP" pull down menu for the following Caltrans approved treatment BMPs that are rarely used: Dry Weather Flow Diversion, Multi-Chamber Treatment Train (MCTT), and Wet Basin. Insert BMP type into *BMP Specific Comments* field.

4.3. *EXAMPLE TEXT FOR BMP SIZE AND LOCATION*

Maintenance must have a good description of the size and location of the treatment BMP. Example text is provided below. Refer to Table 4-4 in Section 4.1.4 for more information.

Table 4-7 Example Text for BMP Size and Location

BMP Specific Comments	<u>Biofiltration Swale</u> Size: Trapezoidal channel with 4:1 side slopes L=45', $W_{(at\ invert)}$=2', Depth of Flow $_{(at\ WQF)}$=0.13' Location: The center of the swale is located 12 to 20 feet from Caltrans right of way. <u>Austin Vault Sand Filter</u> Size L=152', W=30', $Height_{(top\ of\ slab\ to\ top\ of\ wall)}$=6.5-10' Location The BMP is located between Loyal Road southbound onramp and I-5. A maintenance pullout has been provided on the east

	side of the on ramp. Use the Begin Lat/Long provided for approximate center of the BMP location. <u>DPPIA</u> Size L=3,010', W=15-30', Height=0' Location The top edge is located 3' from the edge of pavement. Use the Begin Lat/Long and End Lat/Long provided. The first 2,500' is 15' wide then transitions to 30'. The last 500 feet is 30' wide. The transition length is 10'.

5. REFERENCES

Caltrans NPDES Permit ORDER 2012-0011-DWQ AS AMENDED BY ORDER WQ 014-0006-EXEC, ORDER WQ 2014-0077-DWQ, AND ORDER WQ 2015-0036-EXEC

Caltrans Project Planning and Design Guide (PPDG), July 2017, California Department of Transportation.

Final Draft District NPDES Coordinator Handbook, May 2017, California Department of Transportation.

Caltrans Treatment BMP Design Guidance (http://www.dot.ca.gov/hq/oppd/storm1/caltrans_20090729.html)

Highway Design Manual (HDM), Current Edition, California Department of Transportation.

Stormwater Management Plan (SWMP), July 2016, California Department of Transportation.